

INTERNATIONAL SEARCH REPORT

International Application No
PCT/JP 03/16278

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C01G23/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C01B C01G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>DATABASE WPI Section Ch, Week 199602 Derwent Publications Ltd., London, GB; Class E32, AN 1996-016919 XP002277918 & JP 07 291607 A (MURATA MFG CO LTD), 7 November 1995 (1995-11-07) abstract</p>	1-21
A	<p>US 6 205 015 B1 (HIRAMATSU TAKASHI ET AL) 20 March 2001 (2001-03-20) the whole document</p>	1-21
A	<p>EP 1 148 030 A (SHOWA DENKO KK) 24 October 2001 (2001-10-24) the whole document</p>	1-21

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *Z* document member of the same patent family

Date of the actual completion of the international search

26 April 2004

Date of mailing of the international search report

06/05/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3018

Authorized officer

Arnotte, E

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP 03/16278

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 7291607	A	07-11-1995	NONE	
US 6205015	B1	20-03-2001	JP 3391269 B2 JP 11273986 A DE 19902151 A1 NL 1011085 C2 TW 419686 B	31-03-2003 08-10-1999 22-07-1999 21-07-1999 21-01-2001
EP 1148030	A	24-10-2001	EP 1148030 A1 WO 0035811 A1 US 2002150531 A1	24-10-2001 22-06-2000 17-10-2002